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## UCT explores female conflict and mate choice dilemmas in Southern Pied Babbler birds

Direct conflicts between females, as well as the presence of multiple potential mates for males, play a big part in determining when adult offspring breed. This is according to University of Cape Town's FitzPatrick Institute of African Ornithology research findings, recently published in *Molecular Ecology* on group-living Southern Pied Babblers residing in the South African Kalahari Desert.

Plot points in romantic television series sometimes revolve around the arrival of a beautiful new sister-in-law in a family, and the resulting angst by love-struck brothers. When animals live together in family groups, adult offspring are often limited in their mating options due to their avoidance of inbreeding. This research looks at what happens when unrelated individuals join the group.

Research associates from the University of Cape Town's (UCT) FitzPatrick Institute of African Ornithology, Dr Martha Nelson-Flower, a postdoctoral fellow at the University of British Columbia, Dr Tom Flower at Capilano University and Dr Amanda Ridley at the University of Western Australia, studied the behaviour of wild Southern Pied Babblers, which live in cooperative family groups of up to 14 individuals.

Nelson-Flower says: "Females tend to have overt conflict, such as eating each other's eggs and fighting. We think heavier, older subordinate females are better competitors and that's why they succeed."

The team used 11 years of data to investigate how adult male and female subordinate breeding attempts and breeding success were affected by individual, environmental and social factors. In this species, breeding only occurs between group members, and never between close relatives in the group. When unrelated immigrants entered a group, they found that subordinate female breeding attempts and success were more likely when females were older or heavier.

In contrast, males were more likely to try to breed when they were older or more related to the dominant male, and most likely to succeed when there were multiple unrelated females in the group. Males and females were more likely to try to breed in the family group in dry conditions, a time when options of leaving the group to become an independent breeder were limited.

"Male breeding opportunities seem to be more limited by the female's choice and our results show that dominant females usually prefer the dominant males. This pattern might also be due to the effort that the dominant male puts into guarding the dominant female during egg-laying, which prevents her associating with subordinate males. However, it seems like dominant males can't guard more than one female, or don't even try, which leaves the door open for all sorts of shenanigans amongst the rest of the group," Nelson-Flower concludes.

## Notes to editors

To read the original research article, click here.



A colour-ringed Southern Pied Babbler (Photo by Simon Allen)

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